

November 26, 2012

Director of Compliance and Enforcement Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109 Attn: Title V Reports RECEIVED

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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

SUBJECT:

Title V Semi-Annual Monitoring Report #2

May 1, 2012 to October 31, 2012 Criterion Catalysts & Technologies LP Pittsburg, CA - Facility #A0227

Dear Director of Enforcement,

Enclosed is the Title V Semi-Annual Monitoring Report for the monitoring period of May 1, 2012 to October 31, 2012 for Criterion Catalyst & Technologies.

#### Report Summary

During this reporting period (May 1, 2012 to October 31, 2012), there were three instances of permit condition deviations. A description of each incident was documented to the District with the submission of 10-day Non-Compliance Reports and 30-day Follow-up Reports. A summary of each event follows.

#### July 5, 2012 Event

At approximately 7:50 AM, the afterburner was operating normally (1475°F and 20.8% oxygen) and unexpectedly the temperature started to climb and ultimately reached 1556°F and 18% oxygen at 7:52AM. These are both well within the operating ranges but not at the desired set points. The automated afterburner control system started to react to the changes in the operating conditions. This included the natural gas valve decreasing in an attempt to lower the amount of fuel going to the afterburner and the oxygen supply valve increasing in order to get more oxygen to the afterburner. Soon after these changes, the temperature started to drop. At 7:54:11 AM, the afterburner reached its set point but continued to drop below 1475°. The automatic afterburner control then reacted again by opening up the natural gas valve to get more fuel to the burner in order to get back up to the set point. Despite these reactions, the temperature still decreased. At 7:54:44 the temperature is 1430°F, oxygen is 22% and kiln feed automatic shut off logic stopped feed to the kiln. The afterburner control system continued to make adjustments in an attempt to get the afterburner temperature back up to its set point. The temperature continued to drop and it reached 1400°F at 7:55:31AM and ultimately reached 1399.0°F at 7:55:39AM. The afterburner finally recovered and the temperature rose above 1400° at 7:55:56AM, for a total

of 25 seconds and 1°F below the permit condition of 1400°F. The temperature continued to rise until it reached its set point at approximately 7:59AM. Feed to the kiln was restarted approximately 10 minutes later and the unit ran without incident until the end of the run the following day.

#### August 16, 2012 Event

At approximately 4:46PM, the H2 Kiln (S510) stopped rotating and went into 'low fire' (600°F) for unknown reasons. The kiln temperature normally operates at 1000+°F. The unit was in a product changeover, so there was no base-side/ammonia product in the kiln itself. But, ammonia was in the system from ammonia solutions being made in the T-Tanks (S504-506). The heat from the kiln preheats the exhaust stream at the H2 Afterburner (A56). When the kiln went into 'low fire', the afterburner attempted to react to the temperature change but still lost temperature. At approximately 4:55PM, the afterburner reached 1400° and ultimately reached 1395°F approximately 30 seconds later. The afterburner recovered and reached 1400°+ approximately 30 seconds later, for a total time below 1400° of approximately 1 minute. The automated afterburner control system made several adjustments as soon as it was below its set point of 1500°F. But with the sudden loss of heat from the kiln, it could not react quickly enough to maintain the temperature above 1400°.

The kiln was restarted approximately one hour later after some initial troubleshooting, but was still having problems with its rotation and the unit was shut down for the rest of the night. There were no other low temperature issues.

#### September 25, 2012 Event

On September 25, 2012, during an internal environmental regulatory compliance audit it was discovered that a diesel emergency standby fire water pump generator on-site had been operating without a Permit to Operate (PTO) as required by the Regulation 9 Rule 8 change from several years ago.

Upon inspection, it was discovered that the generator was rated at 100 kW (approximately 134 hp), which is above the exempted maximum power output of 50 hp of Regulation 9 Rule 8. Routine operation of the generator is limited to emergencies and monthly reliability testing.

#### Summary of Preliminary Investigations

The results of our investigations are outlined below and have been previously reported to BAAQMD. Two of the incidents involved minor deviations from the Title V Permit Condition# 9315, Part 9 (and the third involved not having a PTO). The applicable permit condition states that while A56 is in operation [during a base-side run], it must maintain a minimum operating temperature of 1400°F. Importantly, due to the relatively short time the afterburner was below 1400°F during these incidents, we do not believe any of the events exceeded the nitrogen oxide (NOx) or ammonia (NH3) levels in the permit condition (120 lb/day and 200 lb/day, respectively). There are no CEMs units required on the stack to record emissions, so the episodes' emissions were estimated using previous year's stack testing. No stack plumes were observed during the periods of the shutdowns.

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#### July 5, 2012 Event

We believe there was a slight imbalance of process gases and the automated afterburner control system logic was not properly tuned for a short duration episode like this situation.

We believe when the afterburner temperature started to rise, the burner control logic made an aggressive adjustment to cut fuel to the burner to lower the temperature back to the set point of 1475°F. But, these adjustments were too drastic and lowered the temperature too quickly for the short process gas imbalance duration. Due to the short duration of the gas imbalance and initial aggressive burner control logic adjustments, the temperature then quickly dropped below the set point and the logic was not programmed to react to quick changes in temperature. The logic does start to react shortly after the temperature is below the set point, but the changes are not drastic enough to keep the temperature about 1400°F. The changes do slow the temperature drop but not until it ultimately reaches 1399°F.

This entire episode lasts just a few minutes and the temperature dropped only 1°F below the permit condition and for only 25 seconds.

This episode does fall within the accuracy/error range of the thermocouple and PLC. We have submitted the tolerances and accuracy specifications for both the afterburner thermocouple and the afterburner thermocouple PLC to our BAAQMD Inspector. The thermocouple itself has an accuracy range of +/- 0.75% or 10.5°F and the PLC has an accuracy of +/-3.6°F for a total of 14.1°F total accuracy/error range.

#### August 16, 2012 Event

We believe the kiln stopped rotating due to a slight curve or "sag" in the kiln's structure. The sag causes the kiln to not rotate in a perfect circle, as it is slightly out of balance.

Since the kiln is slightly out of balance, when the sag rotates on the downward side, it accelerates the rotation slightly and this is causes a spike in voltage at the drive motor. In order to protect itself from electrical damage, the motor shuts down and the kiln goes into low fire. The sag is a known issue and our Maintenance Department is working on a plan to get the kiln back in balance, but it is a very complex issue. The development of the "low-fire" mode was one of the barriers put in place to protect the kiln from further sag damage. It was suspected the sag developed several years ago when the kiln stopped rotating with a hot kiln bed. The heat and weight of the product made the kiln slightly sag since it was no longer rotating. When the kiln is placed into 'low-fire', it protects the kiln by not having a very large drastic heat change and never allows the kiln to stop rotating and thus not developing a larger sag.

During this incident, the kiln went from 'high fire' to low fire within a few minutes. Normally, this would not be a problem, since there is typically product in the kiln, which retains heat and slows the heat loss to the afterburner, when the kiln goes into low fire. But in this episode, the kiln was completely empty when the 'low fire' mode happened and there wasn't the typical heat buffer from product in the kiln. The drastic change in temperature was too fast for the afterburner to react to and keep the temperature above 1400°.

As noted in previous events, this short episode does fall within the accuracy/error range of the thermocouple and PLC (5°F during episode vs. 14.1°F accuracy/error range). We have previously submitted manufacturer's information on the tolerances and accuracy specifications for both the afterburner thermocouple (+/- 0.75% or 10.5°F) and the afterburner thermocouple PLC (+/-3.6°F) to our BAAQMD inspector.

#### September 25, 2012 Event

On October 4, 2012, a permit application was submitted along with the 10-Day Non-compliance notification. The incomplete application requested information along with the 30 day follow up report was sent to the District on October 23, 2012. On November 7, 2012, a complete permit application submittal notice was received. To date, we have not received the permit for this new source.

#### **Corrective Actions Summary**

#### July 5, 2012 Event

Criterion has undertaken the following action to address this potential problem and prevent further deviations of the Title V permit conditions for the H2 Afterburner (A56):

1. Adjusted the logic to be more active when below the set point and less aggressive when above set point.

#### August 16, 2012 Event

Criterion has undertaken the following action to address this potential problem and prevent further deviations of the Title V permit conditions for the H2 Afterburner (A56):

- 1. Continue to adjust (tune) the automated afterburner control logic to be more active when below the set point.
- 2. Temporarily raised the set point to 1500° (action from the previous incident and set point during this incident).
- 3. Continue to improve the ramp-up/ramp-down feature of the afterburner 'low fire' mode, to make the temperature changes less drastic.
- 4. The last several episodes were all very short and had no excess emissions but were violations of the permit condition. We are trying to work with our permit engineer to change this condition. We hope to find an agreeable solution for both parties to remove the instantaneous requirement of the condition and add wording for upsets situations. We have submitted some initial proposals on wording for the change to the condition, but none have been approved.

September 25, 2012 Event

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Criterion submitted a permit application on October 4, 2012 and submitted the "incomplete application information on October 23<sup>rd</sup>. On November 7, 2012, a complete permit application submittal notice was received from the District. To date, the permit has not been issued.

#### Certification of Compliance Monitoring

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions regarding these matters, please contact Jeff Luengo at (925) 458-7214.

Sincerely,

David Olund Plant Manager

Criterion Catalysts & Technologies, LP

File: AR-T5R-40.33

The following tables list the compliance status for each source. An "X" in the Yes column means that unit is in compliance. An asterisk placed by "X\*" or an "I\*" (intermittent) indicates that there was an episode report and a breach of the permit conditions during the time frame of the report.

|                  | Appl                                 | licable   | Limits                      | and Comp  | e VII – A<br>liance Mon                   | itoring R                    | equiremen                        | ts   |        |
|------------------|--------------------------------------|-----------|-----------------------------|---|---|------------------------------|----------------------------------|------|--------|
| Type of          | Citation of Limit                    | FE<br>Y/N | Future<br>Effective<br>Date | S1 – X  | MULLER  Monitoring  Requirement  Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type               | Сотр | liance |
|                  |                                      |           |                             |   |   | (4.2)                        | ',                               | Yes  | No     |
| Opacity          | BAAQMD 6-301                         | Ŋ         |                             | Ringelmann 1.0 for < 3 minutes/hr                                       | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure<br>warning<br>davice | х    |        |
| Opacity          | SIP 6-301                            | Y         |                             | Ringelmann  1.0 for < 3  minutes/hr                                     | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure warning device       | x    |        |
|                  | BAAQMD<br>condition #8444,<br>part 1 | Y         |                             | Ringelmann  | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure<br>warning<br>device | X    |        |
| FP               | HAAQMD<br>6-1-310                    | N         |                             | 0.15 gr/dscf  | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure<br>warning<br>device | x    |        |
|                  | BAAQMD 6-311                         | И         |                             | 4.10P <sup>0.67</sup> lb/hr,<br>where P is<br>process<br>weight, ton/hr |   | Й                            | None                             | х    |        |
| FP               | SIP 6-310                            | Y         |                             | 0.15 gt/dscf  | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure<br>warning<br>device | x    |        |
|                  | SJP 6-311                            | Y         |                             | 0.15 gr/dscf  | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure<br>warning<br>device | х    |        |
|                  | BAAQMD<br>condition #8444,<br>paπ 2  | Y         |                             | 0.006 gr/dscf   | BAAQMD<br>condition<br>#8444, part 3      | С                            | Bag failure warning device       | х    |        |
| Air flow<br>rate | BAAQMD<br>condition 8444,<br>part 2  | Y         |                             | 1,116 sefm  |   | N                            | None                             | х    |        |

## Table VII - B Applicable Limits and Compliance Monitoring Requirements S2 - X1 DRYER S407 – X2 DRYER

| Type of<br>Limit             | Citation of Limit                     | FE<br>Y/N | Future<br>Effective<br>Date | Limit   | Monitoring<br>Requirement<br>Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type            | Com | pliance |
|------------------------------|---------------------------------------|-----------|-----------------------------|---|---------------------------------------|------------------------------|-------------------------------|-----|---------|
|                              |                                       |           |                             |   |                                       |                              |                               | Yes | No.     |
| Opacity                      | BAAQMD 6-1-301                        | И         |                             | Ringelmann 1,0<br>for < 3<br>minutes/hr   | BAAQMD<br>condition<br>#13099, part 2 | c                            | Bag failure<br>warning device | x   |         |
| Opacity                      | SIP 6-301                             | Υ         |                             | Ringelmann 1.0<br>for < 3<br>minutes/hr   | BAAQMD<br>condition<br>#13099, part 2 | c                            | Bag failure<br>warning device | x   |         |
|                              | BAAQMD<br>condition #13099,<br>part 1 | Y         |                             | Ringelmann 1,0  | BAAQMD<br>condition<br>#13099, part 2 | c                            | Bag failure<br>warning device | x   |         |
| FP                           | BAAQMD<br>6—1-310                     | N         |                             | 0.15 gr/dscf  | BAAQMD<br>condition<br>#13099, part 2 | С                            | Bag failure<br>warning device | x   |         |
|                              | BAAQMD<br>6-1-311                     | N         |                             | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr                        | NONE                                  | И                            | NONE                          | X   |         |
| FP                           | SIP<br>6-310                          | Y         |                             | 0.15 gr/dsef  | BAAQMD<br>condition<br>#13099, part 2 | С                            | Bag failure<br>warning device | х   |         |
|                              | SIP<br>6-311                          | Y         |                             | 4.10P <sup>0.61</sup> lb/hr,<br>where P is<br>process weight,<br>ton/hr               | NONE                                  | N                            | NONE                          | х   |         |
|                              | BAAQMD<br>condition<br>#13099, part 3 | Y         |                             | 0.006 gr/dscf   | BAAQMD<br>condition<br>#13099, part 2 | С                            | Bag failure<br>warning device | X   |         |
| Air flow<br>rat <del>e</del> | BAAQMD<br>condition<br>#13099, part 3 | Y         |                             | 8,000 sefm  | NONE                                  | N                            | NONE                          | X   |         |
| SO2                          | BAAQMD<br>9-1-301                     | N         |                             | GLC of 0.5 ppm<br>for 3 min, or<br>0.25 ppm for 60<br>min, or 0.05<br>ppm for 24 lirs | NONE                                  | N                            | NONE                          | x   |         |
|                              | BAAQMD                                | N         |                             | 50 lbs/hr   | NONE                                  | N                            | NONE                          | X   |         |

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|     | 9-1-311.2 |   |                 |      |   |      |   |  |
|-----|-----------|---|-----------------|------|---|------|---|--|
| SO2 | SIP       | Y | GLC of 0.5 ppm  | NONE | N | NONE | x |  |
|     | 9-1-301   |   | for 3 min. or   |      |   |      |   |  |
|     |           |   | 0.25 ppm for 60 |      |   |      |   |  |
|     |           |   | min, or 0,05    | •    |   |      |   |  |
|     |           |   | ppm for 24      |      |   |      |   |  |
|     |           |   | hours           |      |   |      |   |  |
|     | SIP       | Y | 50 lbs/hr       | NONE | N | NONE | x |  |
|     | 9-1-311.2 |   |                 |      |   |      |   |  |

#### Table VII - C

#### Applicable Limits and Compliance Monitoring Requirements

S3 - X1 DRIED PRODUCT ELEVATOR

S4-X1 DRIED PRODUCT SCREENER

S5-X1 Long Breaker

S6 - X1 KILN FEED CONVEYOR SYSTEM

S8 - X1 CALCINED PRODUCT ELEVATOR

S9 - X1 CALCINED PRODUCT SCREENER

S10-X1 CALCINED PRODUCT PACKAGING

| Type of | Citation of<br>Limit | FE<br>Y/N | Future Effective Date | Limit  | Monitorin<br>g<br>Requireme<br>nt Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type | Comp |    |
|---------|----------------------|-----------|-----------------------|--|--|------------------------------|--------------------|------|----|
| Opacity | BAAQMD               | N         |                       | Ringelmann 1.0   | NONE                                       | N                            | NONE               | X    | No |
|         | 6-301                |           |                       | for  |  |                              |                    |      |    |
| Opacity | SIP<br>6-301         | Y         |                       | Ringelmann 1.0 for < 3 minutes/br                              | NONE                                       | N                            | NONE               | Х    |    |
| FP      | BAAQMD<br>6-1-310    | И         |                       | 0.15 gr/dscf   | NONE                                       | N                            | NONE               | X    |    |
|         | BAAQMD<br>6-1-311    | N         |                       | 4.10P <sup>0 67</sup> lb/hr, where P is process weight, ton/hr | NONE                                       | N                            | NONE               | X    |    |
| FP      | S(P<br>6-310         | Υ         |                       | 0.15 gr/dscf   | NONE                                       | N                            | NONE               | x    |    |
|         | SIP<br>6-311         | Y         |                       | 4.10P <sup>0.67</sup> lb/hr,<br>where P is<br>process weight,  | NONE                                       | N                            | NONE               | х    |    |
|         |                      |           |                       | ton/hr   |  |                              |                    |      |    |

## Table VII - D Applicable Limits and Compliance Monitoring Requirements S7 - X1 KILN S413 – X2 KILN

|          |              |          | Future    |   | Monitoring          | Manitoring  |                | Comp | liance |
|----------|--------------|----------|-----------|---|---------------------|-------------|----------------|------|--------|
| Type of  | Citation of  | FE       | Effective |   | Requirement         | Frequency   | Monitoring     |      |        |
| Limit    | Limit        | Y/N      | Date      | Limit                                   | Citation            | (P/C/N)     | Туре           |      |        |
|          |              |          |           |   |                     |             |                | Yes  | No     |
| Opacity  | BAAQMD       | N        |           | Ringelmann 1,0                          | BAAQMD condition    | c           | Bag failure    |      |        |
|          | 6-1-301      |          |           | for                                     | #13100, part 2      |             | warning device | х    |        |
|          |              | '        |           | < 3 minutes/lur                         |                     |             |                |      |        |
| Opacity  | SIP          | Y        |           | Ringelmann 1.0                          | BAAQMD condition    | c           | Bag failure    |      |        |
|          | 6-301        |          |           | for                                     | #13100, part 2      |             | warning device | x    |        |
|          |              |          |           | < 3 minutes/hr                          |                     |             |                |      |        |
| FP       | BAAQMD       | N        |           | 0.15 gr/dscf                            | BAAQMD condition    | С           | Bag failure    | ļ    |        |
|          | 6-1-310      |          |           |   | #13100, part 2      |             | warning device | X    |        |
|          | BAAQMD       | N        |           | 4.10P <sup>0.67</sup> lb/hr, where P is | NONE                | N           | NONE           | x    |        |
|          | 6-1-311      |          |           | process weight, ton/hr                  |                     |             |                |      |        |
| FP       | SIP          | Y        |           | 0.15 gr/dsef                            | BAAQMD condition    | c           | Bag failure    |      |        |
|          | 6-310        |          |           |   | #13100, part 2      |             | warning device | х    |        |
|          | BAAQMD       | Y        |           | 4.10P <sup>0.67</sup> lb/hr, where P is | NONE                | N           | NONE           | х    |        |
|          | 6-311        |          |           | process weight, ton/hr                  |                     |             |                |      |        |
| FP       | BAAQMD       | Y        |           | 0.006 gr/dscf                           | BAAQMD condition    | c           | Bag failure    |      |        |
|          | condition    |          |           |   | #13100, part 2      |             | warning device | x    |        |
|          | #13100, part |          |           |   |                     |             |                |      |        |
|          | 3            |          |           |   |                     |             |                |      |        |
| Air flow | BAAQMD       | Y        |           | 8,000 sefm                              | NONE                | И           | NONE           | x    |        |
| rate     | condition    |          |           |   |                     |             |                |      |        |
|          | #13100, part |          |           |   |                     |             |                | ļ    |        |
|          | 3            |          |           |   |                     | <del></del> |                |      |        |
| NOx      | BAAQMD       | У        |           | 58 lb/day or 21,000 lb/yr               | BAAQMD condition    | С           | CEM            | x    |        |
|          | condition    |          |           |   | #13100, part 8      |             |                |      |        |
|          | #13100, part |          |           |   |                     |             |                |      |        |
|          | 6            |          |           |   |                     |             |                |      |        |
| Namral   | BAAQMD       | Y        |           | 700,000 therms at \$7                   | BAAQMD condition    | С           | Fuel meter,    |      |        |
| gas      | condition    |          |           |   | #13100, part 9 & 10 |             | record keeping | X    |        |
|          | #13100, part |          |           |   |                     |             |                |      |        |
|          | 4            | <u> </u> |           |   |                     |             |                |      |        |
|          | BAAQMD       | Y        |           | 700,000 therms at \$413                 | BAAQMD condition    | c           | Fuel meter,    |      |        |
|          | condition    |          |           |   | #13100, part 9 & 10 |             | record keeping | х    |        |
|          | #13100, part |          | ĺ         |   |                     |             |                |      |        |
|          | s            |          |           |   |                     |             |                |      |        |

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| SO2 | BAAQMD              | Ŋ | į | GLC of 0.5 ppm for 3 min.  | NONE | N | NONE | Х |  |
|-----|---------------------|---|---|----------------------------|------|---|------|---|--|
|     | 9-1-30 <del>1</del> |   |   | or 0.25 ppm for 60 min. or |      |   |      |   |  |
|     | 1                   |   |   | 0.05 ppm for 24 hours      |      |   |      |   |  |
| SO2 | SIP                 | Y |   | GLC of 0.5 ppm for 3 min.  | NONE | N | NONE | х |  |
| 1   | 9-1-301             |   |   | or 0.25 ppm for 60 min. or |      |   |      |   |  |
|     |                     |   |   | 0.05 ppm for 24 hours      |      |   |      | ! |  |
|     | STP                 | Y |   | 50 lbs/hr                  | NONE | N | NONE | X |  |
|     | 9-1-311.2           |   |   |                            |      |   |      |   |  |

### Table VII - E Applicable Limits and Compliance Monitoring Requirements S11 - X1 CALCINED PRODUCT CONVEYOR

| Type of Limit | Citation of<br>Limit                             | FE<br>Y/N | Future<br>Effective<br>Date | Lìmit  | Monitoring<br>Requirement<br>Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type | Совар | liance |
|---------------|--|-----------|-----------------------------|--|---------------------------------------|------------------------------|--------------------|-------|--------|
|               |  |           |                             |  |                                       |                              | :                  | Yes   | No     |
| Opacity       | BAAQMD<br>6-301,<br>Condition<br># 16736, part 5 | Y         |                             | Ringelmann 1.0<br>for < 3 minutes/hr                                 | None                                  | N                            | None               | X     |        |
| FP            | ВАЛОМD<br>6-310                                  | N         |                             | 0.15 gr/dscf   | None                                  | И                            | None               | Х     |        |
|               | BAAQMD<br>6-311                                  | N         |                             | 4.10F <sup>0.67</sup> lb/hr, where P is process weight, ton/hr       | None                                  | И                            | None               | X     |        |
| FP            | SIP<br>6-310                                     | Y         |                             | 0.15 gn/dsef   | None                                  | N                            | None               | x     |        |
|               | SIP<br>6-311                                     | Y         |                             | 4.10F <sup>0.67</sup> lb/hr,<br>where P is process<br>weight, ton/hr | None                                  | И                            | None               | х     |        |
| Through-put   | BAAQMD<br>condition<br>#16736, part 1            | Y         |                             | 11,000 tons/ут   | BAAQMD<br>condition<br>#16736, part 6 | P/D                          | Record<br>keeping  | X     |        |

### Table VII - F Applicable Limits and Compliance Monitoring Requirements S19-X1 RECYCLE STATION

| Type of<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Limit                        | Monitoring<br>Requirement<br>Citation | Monitoring<br>Frequency<br>(P/C/N) | Manitoring Type | Сопр | liance    |
|------------------|----------------------|-----------|-----------------------------|------------------------------|---------------------------------------|------------------------------------|-----------------|------|-----------|
|                  |                      |           |                             |                              | ļ                                     |                                    |                 | Yes  | No        |
| Opacity          | BAAQMD               | N         |                             | Ringelmann 1,0               | None                                  | N                                  | None            | X    |           |
|                  | 6-1-301              |           |                             | foi                          |                                       |                                    | !               |      |           |
|                  |                      |           |                             | < 3 minutes/hr               |                                       |                                    |                 |      |           |
| Opacity          | SiP                  | Y         |                             | Ringelmann 1.0               | None                                  | N                                  | None            | х    |           |
|                  | 6-301                |           |                             | for                          |                                       |                                    |                 |      |           |
|                  |                      |           |                             | < 3 minutes/hr               |                                       |                                    |                 |      |           |
| FP               | BAAQMD               | N         |                             | 0.15 gr/dscf                 | None                                  | N                                  | None            | Х    |           |
|                  | 6-310                |           |                             |                              |                                       |                                    |                 |      |           |
| 1                |                      |           |                             |                              |                                       |                                    |                 |      |           |
|                  | BAAQMD               | N         | <b></b>                     | 4.10P <sup>0.67</sup> lb/hr, | None                                  | N                                  | None            | X    |           |
|                  | 6-311                |           |                             | where P is process           |                                       |                                    |                 |      |           |
|                  |                      |           | ļ                           | weight, ton/hr               |                                       |                                    |                 |      |           |
| FP               | SIP                  | Y         |                             | 0.15 gr/dsef                 | None                                  | N                                  | None            | Х    |           |
|                  | 6-310                |           |                             |                              |                                       |                                    |                 |      |           |
|                  |                      |           |                             |                              |                                       |                                    |                 |      |           |
| ······           | SIP                  | Y         | <del> </del>                | 4.10F <sup>0.67</sup> lb/hr, | None                                  |                                    | None            |      |           |
|                  | 6-311                |           |                             | where P is process           | i                                     |                                    |                 |      |           |
|                  |                      |           |                             | weight, tombr                |                                       |                                    |                 |      |           |
| Through-put      | BAAQMD               | Υ         |                             | 3,667 tons/yr                | BAAQMD                                | P/D                                | Record          |      | · · · · · |
|                  | condition            |           |                             |                              | condition                             |                                    | keeping         | x    |           |
|                  | #16736, part 1       |           |                             | 1                            | #16736, part 6                        |                                    |                 |      | ]         |
|                  | "                    |           |                             |                              |                                       |                                    |                 |      |           |

#### Table VIJ - G

#### Applicable Limits and Compliance Monitoring Requirements

S104 - H1 BLENDING TANK T-1 S105 - H1 BLENDING TANK T-2 S106 - H1 BLENDING TANK T-3

| :             | 1               |          | Future    |                               | Munitering    | Monitorin |             | Comp | tiance |
|---------------|-----------------|----------|-----------|-------------------------------|---------------|-----------|-------------|------|--------|
| Type of       | Citation of     | FE       | Effective |                               | Requirement   | g         | Monitoring  |      |        |
| Limit         | Limit           | Υl       | Date      | Limit                         | Citation      | Frequenc  | Туре        |      |        |
|               |                 | N        |           |                               |               | у         |             |      |        |
| i             |                 |          |           |                               |               | (P/C/N)   |             |      |        |
|               |                 |          |           |                               |               |           |             | Yes  | No     |
| Opacity       | BAAQMID         | N        |           | Ringelmann 1.0                | BAAQMD        | С         | Bag failure |      |        |
|               | 6-1-301,        |          |           | for < 3 minutes/hr            | condition     |           | warning     | X    |        |
| İ             | Condition 9984, |          |           |                               | #9984, part 3 |           | device      |      |        |
|               | part I          |          |           |                               |               |           |             |      |        |
| Opacity       | SIP             | Y        |           | Ringelmann 1,0                | BAAQMD        | С         | Bag failure |      |        |
|               | 6-301,          |          |           | for < 3 minutes/hr            | condition     |           | warning     | X    |        |
| !             | Condition 9984, |          |           |                               | #9984, part 3 |           | device      |      |        |
|               | part 1          |          |           |                               |               |           |             |      |        |
| FP            | BAAQMD          | N        |           | 0.15 gr/dscf                  | BAAQMD        | С         | Bag failure |      |        |
|               | 6-1-310         |          |           |                               | condition     |           | warning     | X    |        |
|               |                 |          |           |                               | #9984, part 3 |           | device      |      |        |
|               | BAAQMD          | N        |           | 4,10P <sup>0.67</sup> [b/hr,  | None          | И         | None        | X    |        |
|               | 6-1-3 1         |          |           | where P is process            |               |           |             |      |        |
|               |                 | <u> </u> |           | weight, ton/hr                |               |           | :           |      |        |
| PP            | SIP             | Y        |           | 0.15 gt/dscf                  | BAAQMD        | С         | Bag failure |      |        |
|               | 6-310           |          |           |                               | condition     |           | warning     | X    |        |
|               |                 |          |           |                               | #9984, part 3 |           | device      |      |        |
|               | Sir             | Y        |           | 4.10P <sup>0.67</sup> lb/lur, | None          | N         | None        | x    |        |
|               | 6-311           |          |           | where P is process            |               |           |             |      |        |
|               |                 |          |           | weight, ton/hr                |               |           |             |      |        |
|               | BAAQMD          | Y        |           | 0.006 gr/dscf                 | BAAQMD        | С         | Bag failure |      |        |
|               | condition       |          |           |                               | condition     |           | warning     | х    |        |
|               | #9984, part 2   |          |           |                               | #9984, part 3 |           | device      |      |        |
| Air flow rate | BAAQMD          | Y        |           | 3,500 sefin                   | None          | N         | None        | x    |        |
|               | condition       |          |           |                               |               |           |             |      |        |
|               | #9984, part 2   |          |           |                               |               |           |             |      |        |

|         | Ap                   | plicabl   |                             | Table<br>and Compl<br>7 - H1 L1QUI       |                                       | _                                  | equiremen          | its |         |
|---------|----------------------|-----------|-----------------------------|--|---------------------------------------|------------------------------------|--------------------|-----|---------|
| Type of | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Limit                                    | Monitoring<br>Requirement<br>Citation | Monitoring<br>Frequency<br>(P/C/N) | Monitoring<br>Type | Com | pliance |
|         | <u>.</u>             |           |                             |  |                                       |                                    |                    | Yes | No      |
| Opacity | BAAQMD<br>6-1-301    | N         |                             | Ringelmann 1.0<br>for < 3<br>minutes/hr  | None                                  | N                                  | None               | x   |         |
| Opacity | SIP<br>6-301         | Y         |                             | Ringelmann 1.0<br>for < 3<br>minutes/fur | None                                  | И                                  | None               | X   | :       |

#### Table VII - I

# Applicable Limits and Compliance Monitoring Requirements S111 – O4 CALCINED PRODUCT ELEVATOR S112 – O4 CALCINED PRODUCT SCREENER S113 – O4 CALCINED PRODUCT PACKAGING S114 – O4 KILN HOPPER

| Type of<br>Limit | Citation of                           | FE<br>Y/N | Future<br>Effective<br>Date | Limit  | Monitoring Requirement Citation       | Monitoria<br>g<br>Frequency<br>(P/C/N) | Monitoring<br>Type                      | Сошт     | liance |
|------------------|---------------------------------------|-----------|-----------------------------|--|---------------------------------------|--|---|----------|--------|
| Opacity          | BAAQMD<br>6-1-301,                    | И         |                             | Ringelmann 1,0  for < 3 minutes/hr                                   | BAAQMD condition                      | С                                      | Bag failure                             | Yes<br>X | No     |
|                  | condition<br>#13138 part 1            |           |                             |  | #13138, part 3                        |  | - · · · · · · · · · · · · · · · · · · · |          |        |
| Opacity          | SIP 6-301, condition #13138 part I    | Y         |                             | Ringelmann 1.0<br>for < 3 minutes/hr                                 | BAAQMD<br>condition<br>#13138, part 3 | С                                      | Bag failure<br>warning device           | X        |        |
| FP               | BAAQMD<br>6-1-310                     | N         |                             | 0.15 gr/dscf   | BAAQMD<br>condition<br>#13138, part 3 | С                                      | Bag failure<br>warning device           | X        |        |
|                  | BAAQMD<br>6-1-311                     | И         |                             | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr       | NONE                                  | N                                      | иоие                                    | X        |        |
| FP               | SIP<br>6-310                          | Y         |                             | 0.15 gr/dscf   | BAAQMD<br>condition<br>#13138, part 3 | C                                      | Bag failure<br>warning device           | X        |        |
|                  | SIP<br>6-311                          | Y         | :                           | 4.10P <sup>0.67</sup> lb/hr,<br>where P is process<br>weight, ton/hr | NONE                                  | N                                      | NONE                                    | х        |        |
|                  | BAAQMD<br>condition<br>#13138, part 2 | Y         |                             | 0.006 gr/dsef  | BAAQMD<br>condition<br>#13138, part 3 | С                                      | Bag failure<br>warning device           | x        |        |
|                  | BAAQMD<br>condition<br>#13138, part 2 | Y         |                             | 0.39 lb/hr   | BAAQMD<br>condition<br>#13138, part 3 | С                                      | Bag failure<br>warning device           | x        |        |

# Table VII - J Applicable Limits and Compliance Monitoring Requirements \$303 - Alumina Receiving Fluidstat Station \$309 - Alumina Recirculation Fluidstat Station \$310 - Alumina Measuring Fluidstat Station

| Type af<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Lêmíi  | Monitoring<br>Requirement<br>Citation | Monitoring<br>Frequency<br>(P/C/N) | Monitorin<br>g Type | Сомр | iaoce |
|------------------|----------------------|-----------|-----------------------------|--|---------------------------------------|------------------------------------|---------------------|------|-------|
|                  | 1.                   |           |                             |  | ••••                                  |                                    |                     | Yes  | No    |
| Opacity          | BAAQMD<br>6-1-301    | N         |                             | Ringelmann 1.0 for   | NONE                                  | И                                  | NONE                | х    |       |
| Opacity          | SIP<br>6-301         | Y         |                             | Ringelmann 1.0 for < 3 minutes/hr                                    | NONE                                  | N                                  | NONE                | x    |       |
| FP               | BAAQMD<br>6-1-310    | N         |                             | 0.15 gr/dscf   | NONE                                  | N                                  | NONE                | x    |       |
|                  | BAAQMD<br>6-1-311    | מ         |                             | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr       | NONE                                  | И                                  | NONE                | х    |       |
| FP               | SIP<br>6-310         | Y         |                             | 0.15 gr/dscf   | NONE                                  | N                                  | NONE                | x    |       |
|                  | SIP<br>6-311         | Y         |                             | 4.10F <sup>0.67</sup> lb/hr,<br>where P is process<br>weight, ton/hr | NONE                                  | N                                  | NONE                | X    |       |

### Table VII - K Applicable Limits and Compliance Monitoring Requirements S304 - ALUMINA SILO 1

S305 – Alumina Silo 2, S306 – Alumina Silo 3 S307 – Alumina Silo 4, S308 – Alumina Silo 5

| Type of<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Lìmit  | Monitoring<br>Requirement<br>Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type | Comp | liance |
|------------------|----------------------|-----------|-----------------------------|--|---------------------------------------|------------------------------|--------------------|------|--------|
|                  |                      |           |                             |  |                                       |                              |                    | Yes  | No     |
| Opacity          | BAAQMD<br>6-1-308    | N         |                             | Ringelmann 1,0 for < 3 minutes/hr                              | NONE                                  | N                            | NONE               | х    |        |
| Opacity          | SIP<br>6-301         | Y         |                             | Ringelmann 1.0 for   | NONE                                  | N                            | NONE               | X    |        |
| FP               | BAAQMD<br>6-1-310    | N         |                             | 0.15 gr/dsef   | NONE                                  | N                            | NONE               | X    |        |
|                  | BAAQMD<br>6-1-311    | N         |                             | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, tou/hr | NONE                                  | И                            | NONE               | X    |        |
| FP               | \$1P 6-310           | Y         |                             | 0.15 gr/dsef   | NONE                                  | N                            | NONE               | X    |        |
|                  | SIP<br>6-311         | Y         |                             | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr | NONE                                  | N                            | NONE               | X    |        |

# Table VII - L Applicable Limits and Compliance Monitoring Requirements S311 - ALUMINA BULK BAG UNLOADER S312 - ALUMINA REPACKAGING STATION S313 - FINES GRINDER FEED HOPPER SYSTEM

| Type of<br>Limit | Citation of<br>Limit                 | FE  | Future<br>Effective | Limit                        | Monitoring<br>Requiremen<br>t Citation | Monitoring  Frequency | Monitoring  | Согарі | iance |
|------------------|--------------------------------------|-----|---------------------|------------------------------|--|-----------------------|-------------|--------|-------|
| Limit            | Limit                                | YAN | Date                | Limit                        | t Citation                             | (P/C/N)               | Туре        | Yes    | No    |
| Opacity          | BAAQMD                               | N   |                     | Ringelmann 1.0 for           | BAAQMD                                 | C                     | Bag failure |        |       |
|                  | 6-1-301,                             |     |                     | < 3 minutes/hr               | condition                              |                       | warning     | x      |       |
|                  | condition #3344,                     |     | <u> </u>            |                              | #3344, part 5                          |                       | device      | i      |       |
|                  | part 1                               |     |                     |                              |  |                       |             |        |       |
| Opacity          | \$IP                                 | Y   |                     | Ringelmann 1.0 for           | BAAQMID                                | С                     | Bag failure |        |       |
|                  | 6-301, condition                     |     |                     | < 3 minutes/hr               | condition                              |                       | warning     | х      |       |
|                  | #3344, part 1                        |     |                     |                              | #3344, part 5                          |                       | device      |        |       |
| FP               | BAAQMD                               | N   |                     | 0.15 gr/dscf                 | BAAQMD                                 | С                     | Bag failure |        |       |
|                  | 6-1-310                              |     |                     |                              | Condition                              |                       | warning     | х      |       |
|                  |                                      |     |                     |                              | #3344, part 5                          |                       | device      |        |       |
|                  | BAAQMD                               | И   |                     | 4.10F <sup>0.67</sup> lb/hr, | NONE                                   | И                     | NONE        | x      |       |
|                  | 6-1-311                              |     |                     | where P is process           |  |                       |             |        |       |
|                  |                                      |     |                     | weight, ton/hr               |  |                       |             |        |       |
| FP               | BAAQMD                               | Υ   |                     | 0.15 gr/dsef                 | BAAQMD                                 | C                     | Bag failure |        |       |
|                  | 6-310                                |     |                     |                              | Condition                              |                       | warning     | х      |       |
|                  |                                      |     |                     |                              | #3344, part 5                          |                       | device      |        |       |
|                  | BAAQMD                               | Y   |                     | 4.10P <sup>0.67</sup> lb/hr, | NONE                                   | N                     | NONE        | Х      |       |
|                  | 6-311                                |     |                     | where P is process           |  |                       |             |        |       |
|                  |                                      |     |                     | weight, ton/hr               |  |                       |             |        |       |
|                  | BAAQMD                               | Y   |                     | 0.005 gr/dsef                | BAAQMD                                 | С                     | Bag failure |        |       |
|                  | condition                            |     |                     |                              | condition.                             |                       | warning     | X      |       |
|                  | #3344, part 6                        |     |                     |                              | #3344, part 5                          |                       | device      |        |       |
| Nickel           | BAAQMD                               | Y   |                     | 7% by weight per             | BAAQMD                                 | P/H                   | Record      |        |       |
| content          | condition                            |     |                     | hour at \$313                | condition                              |                       | keeping     | x      |       |
|                  | #3344, part 8                        |     |                     |                              | #3344, part 9                          |                       |             |        |       |
| Through-         | BAAQMD                               | Y   |                     | 12,480 tons/ут for           | BAAQMD                                 | P/D                   | Record      |        |       |
| put (bulk)       | condition                            |     |                     | \$311 and \$312              | condition                              |                       | keeping     | x      |       |
|                  | #3344, part 2                        |     |                     |                              | #3344, part 9                          |                       |             |        |       |
| Through-         | BAAQMD                               | Y   |                     | 4,380 tons/yr for            | BAAQMD                                 | P/D                   | Record      |        |       |
| put              | condition                            |     |                     | S313                         | condition                              |                       | keeping     | x      | [     |
| (catalyst)       | #3344, part 3                        |     |                     |                              | #3344, part 9                          | <u></u>               |             |        |       |
| Air flow         | BAAQMD<br>condition #3344,<br>part 6 | Y   |                     | 2,900 scfin                  |  | N                     |             | ·      |       |

#### Table VII - M

#### Applicable Limits and Compliance Monitoring Requirements

**S314 - REGROUND FINES STORAGE SILO TK-70112** 

S315 - REGROUND FINES STORAGE SILO TK-70113

S316 - REGROUND FINES STORAGE SILO TK-70114

S317 - REGROUND FINES STORAGE SILO TK-70115

S318 – Fines Weigh Hopper Blow Pot S319 – Fines Bagout Station No.1 & No.2

S320 - FINES GRINDER

S322 - Fines Tanker Truck Delivery System

| Type of           | Citation of                | FE<br>Y/N   | Fature<br>Effective<br>Date                      | Limit                         | Monitoring  Requirement  Citation | Monitoring Frequency (P/C/N)          | Monitoring Type | Compl | iance |
|-------------------|----------------------------|-------------|--|-------------------------------|-----------------------------------|---------------------------------------|-----------------|-------|-------|
|                   | •                          |             |  |                               |                                   |                                       |                 | Yes   |       |
| Opacity           | BAAQMD                     | N           |  | Ringelmann 1.0 for            | BAAQMD                            | С                                     | Bag failure     | Ţ     |       |
|                   | 6-1-301                    |             |  | < 3 minutes/hr                | condition                         |                                       | warning         | x     |       |
|                   |                            |             | i  |                               | #8468, part 5                     |                                       | device          |       |       |
| Opacity           | SIP                        |             |  | Ringelmann 1.0 for            | BAAQMD                            | С                                     | Bag failure     |       |       |
|                   | 6-301                      | •           |  | < 3 minutes/hr                | condition                         |                                       | warning         | x     |       |
|                   | 0-301                      |             |  | < 3 innutes in                |                                   |                                       | ŭ               | ^     |       |
|                   |                            | ··· ··· ··· |  |                               | #8468, part 5                     | ··· · · · · · · · · · · · · · · · · · | device          |       |       |
| FP                | BAAQMD                     | N           |  | 0.15 gr/dscf                  | BAAQMD                            | С                                     | Bag failure     |       |       |
|                   | 6-1-310                    |             |  |                               | condition                         |                                       | warning         | x     |       |
|                   |                            |             |  |                               | #8468, part 5                     |                                       | device          |       |       |
|                   | BAAQMD                     | N           |  | 4.10P <sup>0.67</sup> lb/hr,  | NONE                              | N                                     | NONE            | х     |       |
|                   | 6-1-311                    |             |  | where P is process            |                                   |                                       |                 | •     |       |
|                   |                            |             |  | weight, ton/hr                |                                   |                                       |                 |       |       |
|                   | _                          |             | <del> </del>                                     |                               | _                                 |                                       |                 |       |       |
| FP                | SIP                        | Y           |  | 0.15 gr/dscf                  | BAAQMD                            | С                                     | Bag failure     |       |       |
|                   | 6-310                      |             |  |                               | condition                         |                                       | warning         | x     |       |
|                   | l                          |             | l<br>1   |                               | #8468, part 5                     |                                       | device          |       |       |
| -                 | SIP                        | Y           |  | 4. LQP <sup>0 67</sup> ]Խ/hr, | NONE                              | N                                     | NONE            | х     |       |
|                   | 6-311                      |             |  | where P is process            |                                   |                                       |                 |       |       |
|                   |                            |             | ļ  | weight, ton/hr                |                                   |                                       |                 |       |       |
|                   | BAAQMD                     | Y           |  | 0.005 gr/dscf                 | BAAQMD                            | С                                     | Bag failure     |       |       |
|                   | condition                  |             |  |                               | condition.                        |                                       | warning         | x     |       |
|                   | #8468, part 6              |             |  |                               | #8468, part 5                     |                                       | device          |       |       |
| Nickel            | BAAQMD                     | Y           | <del> </del>                                     | 7% by weight per              | BAAQMD                            | P/H                                   | Record          | ····· |       |
| content           | condition<br>#8468, part 8 |             |  | hour                          | condition<br>#3344, part 9        |                                       | keeping         | х     |       |
| Through-          | BAAQMD                     | Ý           | <del>                                     </del> | 4,380 tons/yr for             | BAAQMD                            | P/D                                   | Record          |       |       |
| put<br>(catalyst) | condition<br>#8468, part 2 |             |  | each source                   | uondition<br>#8468, part 9        |                                       | keeping         | x     |       |
| Air flow          | BAAQMD                     | Y           |  | 3,000 sofm from               | NONE                              | N                                     | NONE            | x     |       |
| rate              | condition<br>#8468, part 6 |             |  | each source                   |                                   |                                       |                 | i     |       |

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### Table VII - N Applicable Limits and Compliance Monitoring Requirements S321 - ALUMINA STORAGE SILO

| Type of<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Limit                              | Monitoring<br>Requirement<br>Citation | Monitorin<br>g<br>Frequency<br>(P/C/N) | Monitoring<br>Type | Comp | liance |
|------------------|----------------------|-----------|-----------------------------|------------------------------------|---------------------------------------|--|--------------------|------|--------|
|                  |                      |           |                             | ••••••                             |                                       |  |                    | Yes  | No     |
| Opacity          | BAAQMD               | И         |                             | Ringelmann 1.0 for <               | BAAQMD                                | C                                      | Bag failure        |      |        |
|                  | 6-1-301              |           | į                           | 3 minutes/hr                       | Condition                             |  | warning device     | x    |        |
|                  | · ·                  |           |                             |                                    | #13092, part 3                        |  |                    |      |        |
| Opacity          | SIP                  | Y         |                             | Ringelmann 1.0 for <               | BAAQMD                                | c                                      | Bag failure        |      |        |
|                  | 6-301                |           |                             | 3 minutes/hr                       | Condition                             |  | warning device     | X    |        |
|                  |                      |           |                             |                                    | #13092, part 3                        |  |                    |      |        |
| FP               | BAAQMD               | N         |                             | 0.15 gr/dsef                       | BAAQMD                                | С.                                     | Bag failure        |      |        |
|                  | 6-1-310              |           |                             | }                                  | condition                             |  | warning device     | X    |        |
|                  |                      |           |                             |                                    | #13092, part 3                        |  |                    |      |        |
|                  | BAAQMD               | N         |                             | 4.10P <sup>0.67</sup> lb/hr, where | NONE                                  | N                                      | NONE               | х    |        |
|                  | 6-1-311              |           |                             | P is process weight,               |                                       |  |                    |      |        |
|                  |                      |           |                             | ton/hr                             |                                       |  |                    |      |        |
| FP               | SIP                  | Y         | i                           | 0.15 gr/dscf                       | BAAQMD                                | c                                      | Bag failure        |      |        |
|                  | 6-310                |           |                             | · ·                                | condition                             |  | warning device     | х    |        |
|                  |                      |           |                             |                                    | #13092, part 3                        |  |                    |      |        |
|                  | SIP                  | Y         |                             | 4.10P <sup>0,67</sup> lb/hr, where | NONE                                  | N                                      | NONE               | х    |        |
|                  | 6-311                |           | Į.                          | P is process weight,               |                                       |  |                    |      |        |
|                  |                      |           |                             | 16H/H                              |                                       |  |                    |      |        |
|                  | BAAQMD               | Y         |                             | 0.005 gr/dscf                      | BAAQMD                                | c                                      | Bag failure        |      |        |
|                  | condition            |           |                             |                                    | condition.                            |  | warning device     | x    |        |
|                  | #13092, part 4       | ļ         |                             |                                    | #13092, part 3                        |  |                    |      |        |
| Through-put      | BAAQMD               | У         |                             | 9,636 tons/yr                      | BAAQMD                                | P/D                                    | Record             | •    |        |
| (Alumina)        | condition            |           | -                           |                                    | condition                             |  | keeping            | х    |        |
|                  | #13092, part 2       |           | -                           |                                    | #13092, part 5                        |  |                    |      |        |
| Air flow rate    | BAAQMD               | Y         |                             | 150 scfin                          | NONE                                  | N                                      | NONE               | х    |        |
|                  | condition            |           |                             |                                    |                                       | İ                                      |                    |      |        |
|                  | #13092, part 4       |           |                             |                                    |                                       |  |                    |      |        |

### Table VII - O Applicable Limits and Compliance Monitoring Requirements S401 - X2 MULLER

| Type of<br>Limit | Citation of<br>Limit | FE<br>YO | Future<br>Effective<br>Date | Limit                        | Monitoring<br>Requirement<br>Citation | Monitoring Frequency (P/C/N) | Monituring<br>Type | Comp |    |
|------------------|----------------------|----------|-----------------------------|------------------------------|---------------------------------------|------------------------------|--------------------|------|----|
|                  |                      |          |                             |                              | -                                     |                              |                    | Yes  | No |
| Opacity          | BAAQMD               | N        |                             | Ringelmann 1.0               | BAAQMD                                | С                            | Bag failure        |      |    |
|                  | 6-1-301              |          |                             | for < 3 minutes/hr           | condition                             |                              | warning            | х    |    |
|                  |                      |          |                             |                              | #8445, part 3                         |                              | device             |      |    |
| Opacity          | SIP                  | Y        |                             | Ringelmann 1.0               | BAAQMD                                | С                            | Bag failure        |      |    |
|                  | 6-301                |          |                             | for < 3 minutes/hr           | condition                             |                              | warning            | х    |    |
|                  |                      |          |                             |                              | #8445, part 3                         |                              | device             |      |    |
| FP               | BAAQMD               | N        |                             | 0.15 gr/dscf                 | BAAQMD                                | С                            | Bag failure        |      |    |
|                  | 6-1-310              |          |                             |                              | condition                             |                              | warning            | x    |    |
|                  |                      |          |                             |                              | #8445, part 3                         |                              | device             |      |    |
|                  | BAAQMD               | N        |                             | 4.10P <sup>0.67</sup> lb/hr, | NONE                                  | N                            | NONE               | x    |    |
|                  | 6-1-311              |          |                             | where P is process           |                                       |                              |                    |      |    |
|                  |                      |          |                             | weight, ton/hr               |                                       |                              |                    |      |    |
| FP               | SIP                  | Y        |                             | 0.15 gr/dsof                 | BAAQMD                                | С                            | Bag failure        |      |    |
|                  | 6-310                |          |                             |                              | condition                             |                              | warning            | x    |    |
|                  |                      |          |                             |                              | #8445, part 3                         |                              | device             |      |    |
| ••               | SIP                  | Y        |                             | 4.10P <sup>3 67</sup> lb/hr, | NONE                                  | N                            | NONE               | х    |    |
|                  | 6-311                |          |                             | where P is process           |                                       |                              |                    |      |    |
|                  |                      |          |                             | weight, ton/hr               |                                       |                              |                    |      |    |
|                  | BAAQMD               | Υ        |                             | 0.006 gr/dscf                | BAAQMD                                | С                            | Bag failure        |      |    |
|                  | condition            |          |                             |                              | condition.                            |                              | warning            | x    |    |
|                  | #8445, part 2        |          |                             |                              | #8445, part 3                         |                              | device             |      |    |
| Air flow         | BAAQMD               | Y        |                             | 1,116 sefm                   | NONE                                  | N                            | NONE               | X    |    |
| rate             | condition            |          |                             |                              |                                       |                              |                    | ļ    |    |
|                  | #8445, part 2        |          |                             |                              |                                       |                              |                    |      |    |

#### Table VII - P

## Applicable Limits and Compliance Monitoring Requirements S408 - X2 DRIED PRODUCT ELEVATOR S409 - X2 DRIED PRODUCT SCREENER S410 - X2 LONG BREAKER, S412 - X2 KILN FEED CONVEYOR

S414 – X2 CALCINED PRODUCT ELEVATOR S415 – X2 CALCINED PRODUCT SCREENER S416 – X2 CALCINED PRODUCT PACKAGING

| Type of<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Lìmit  | Monitoring<br>Requirement<br>Citation | Monitoring  Frequency  (P/C/N) | Monitoring<br>Type | Сотр | liance |
|------------------|----------------------|-----------|-----------------------------|--|---------------------------------------|--------------------------------|--------------------|------|--------|
|                  |                      | <u>.</u>  |                             |  |                                       |                                |                    | Yes  | No     |
| Opacity          | 8AAQMD<br>6-1-301    | N         |                             | Ringelmann 1.0<br>for < 3 minutes/hr                                 | NONE                                  | N                              | NONE               | х    |        |
| Opacity          | SIP 6-301            | Y         |                             | Ringelmann 1.0<br>for < 3 minutes/hr                                 | NONE                                  | N N                            | NONE               | х    |        |
| FP               | BAAQMD<br>6-1-310    | N         |                             | 0.15 gr/dsef   | NONE                                  | N                              | NONE               | X    |        |
| FP               | BAAQMD<br>6-1-311    | N         |                             | 4.10P <sup>0.67</sup> lb/hr,<br>where P is process<br>weight, ton/hr | NONE                                  | N                              | NONE               | х    |        |
| FP               | SIP 6-310            | Y         |                             | 0.15 gr/dsef   | NONE                                  | N                              | NONE               | x _  |        |
| FP               | S1P6-311             | Y         |                             | 4.10P <sup>0 67</sup> lb/hr, where P is process weight, ton/hr       | NONE                                  | N                              | NONE               | х    |        |

#### Table VII - Q

## Applicable Limits and Compliance Monitoring Requirements S417 - X2 CALCINED PRODUCT CONVEYOR S418 - X2 RECYCLE STATION S515 - H2 SOLID ADDITIVE HOPPER A

S516 - H2 SOLID ADDITIVE HOPPER B

S517 – H2 PRODUCT RECYCLE SYSTEM

S518 - H2 CALCINED FEED SYSTEM

S519 - H2 SPHERICAL HOPPER SYSTEM

S520 - H2 CALCINED FEED BAGOUT STATION

| Type of<br>Limit | Cita <b>ti</b> an of<br><b>L</b> imit             | FE<br>Y/N | Future<br>Effectiv<br>e Date | Limit   | Monitoring<br>Requirement<br>Citation | Monitoring<br>Frequency<br>(P/C/N) | Alonitarin<br>g Type |          | npliance<br>No |
|------------------|---|-----------|------------------------------|---|---------------------------------------|------------------------------------|----------------------|----------|----------------|
| Opacity          | BAAQMD<br>6-1-301,<br>condition<br>#16736, part 5 | N         |                              | Ringelmann 1.0 for < 3<br>minutes/hr  | NONE                                  | И                                  | NONE                 | Yes<br>X | No.            |
| Opacity          | SIP<br>6-301,<br>condition<br>#16736, part 5      | Y         |                              | Ringelmann 1.0 for < 3<br>minutes/hr  | NONE                                  | N                                  | NONE                 | х        |                |
| FP               | BAAQMD<br>6-1-310                                 | И         |                              | 0.15 gr/dsef  | NONE                                  | Ŋ                                  | NONE                 | х        |                |
|                  | BAAQMD<br>6-1-311                                 | N         |                              | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr  | NONE                                  | N                                  | NONE                 | x        |                |
| FP               | SIP<br>6-310                                      | Y         |                              | 0.15 gr/dscf  | NONE                                  | N                                  | NONE                 | х        |                |
|                  | SIP<br>6-311                                      | Y         |                              | 4.10P <sup>0.67</sup> Ib/hr, where P is process weight, ton/hr  | NONE                                  | И                                  | NONE                 | X        |                |
| Through-<br>put  | BAAQMD<br>condition<br>#16736, part 1             | Y         |                              | \$417: 12,000 tons/yr \$418: 12,000 tons/yr \$515: 1,700 tons/yr \$516: 3,300 tons/yr \$517: 16,000 tons/yr \$518: 16,000 tons/yr \$519: 16,000 tons/yr | BAAQMD<br>condition<br>#16736, part 6 | P/ID                               | Record<br>keeping    | х        |                |

### Table VII - R Applicable Limits and Compliance Monitoring Requirements S420 - COLD CLEANER

| Type of<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective Date | Limit         | Monitaring<br>Requirement<br>Citation | Monitoring<br>Frequency<br>(P/C/N) | Monitoring<br>Type | Comp | diance |
|------------------|----------------------|-----------|--------------------------|---------------|---------------------------------------|------------------------------------|--------------------|------|--------|
|                  |                      |           |                          |               |                                       |                                    |                    | Yes  | No     |
| Through put      | BAAQMD<br>8-16-121   | Y         |                          | 20 gallons/yr | BAAQMD<br>8-16-501.2,<br>8-16-501.6   | P/Annual                           | Record<br>keeping  | x    |        |

### Table VII – S Applicable Limits and Compliance Monitoring Requirements S502 - NICKEL SOLUTION TANK

| Type of<br>Limit | Citation of     | FE<br>Y/N | Future<br>Effective<br>Date | Limit      | Monitoring Requirement Citation | Monitoring<br>Frequency<br>(P/C/N) | Monitoring<br>Type | Сотр | liance |
|------------------|-----------------|-----------|-----------------------------|------------|---------------------------------|------------------------------------|--------------------|------|--------|
|                  |                 |           |                             |            | :                               |                                    |                    | Yes  | No     |
| Ni               | BAAQMD          | Y         |                             | 0,73 lb/yr | BAAQMD                          | P/Annual                           | Record             |      |        |
|                  | Regulation 2-1, |           |                             |            | 2-1-316.1                       |                                    | keeping            | х    |        |
|                  | Table 2-1-316   |           |                             |            |                                 |                                    |                    |      |        |

#### Table VII - T

#### Applicable Limits and Compliance Monitoring Requirements

\$504 - H2 BLENDING TANK T-1

S505-H2 BLENDING TANK T-2

S506-H2 BLENDING TANK T-3

S507 - H2 Liquid/Solid Blender

S509-H2 KILN FEED CONVEYOR

S510 – H2 Kiln

S514 - H2 KILN BYPASS CHUTE & HOPPER W/DUSTHOOD

|           |                   |           | Future   |                              | Monitoring       | Manitoring |                  | Compl    | iance    |
|-----------|-------------------|-----------|----------|------------------------------|------------------|------------|------------------|----------|----------|
| Type of   | Citation of Limit | PE        | Effectiv |                              | Requirement      | Frequency  | Monitoring       |          |          |
| Limit     |                   | Y/N       | e Date   | Limit                        | Citation         | (P/C/N)    | Туре             |          |          |
|           |                   |           |          |                              |                  |            |                  | Yes      | No       |
| Opacity   | BAAQMD            | N         |          | Ringelmann 1.0 for           | BAAQMD condition | С          | Bay failure      |          |          |
|           | 6-1-301           |           |          | < 3 minutes/hr               | #9315, part 5    |            | warning device   | X        |          |
| Opacity   | SIP               | Y         |          | Ringelmann 1.0 for           | BAAQMD condition | С          | Bag failure      |          |          |
|           | 6-301             |           |          | < 3 minutes/hr               | #9315, part 5    |            | warning device   | X        |          |
| FP        | BAAQMD            | Y         |          | 0.15 gr/dsef                 | BAAQMD condition | С          | Bag failure      | х        |          |
|           | 6-1-310           |           |          |                              | #9315, part 5    |            | warning device   |          |          |
|           | BAAQMD            | Y         |          | 4.10P <sup>0.67</sup> lb/hr, | NONE             | N          | NONE             | X        |          |
|           | 6-1-311           |           |          | where P is process           |                  |            |                  |          |          |
|           |                   |           |          | weight, ton/hr               |                  |            |                  |          | <u> </u> |
| FP        | SIP               | Y         |          | 0.15 gr/dscf                 | BAAQMD condition | С          | Bag failure      | x        |          |
|           | 6-310             | <u> </u>  |          |                              | #9315, part 5    |            | warning device   |          |          |
|           | SIP               | Y         |          | 4.10P <sup>0 67</sup> lb/hr, | NONE             | N          | NONE             | x        | i        |
|           | 6-311             | !         | ļ        | where P is process           |                  |            |                  |          |          |
|           |                   |           |          | weight, ton/hr               |                  |            |                  |          |          |
|           | BAAQMD            | Y         |          | 0.006 gr/dscf                | BAAQMD condition | С          | Bag failure      |          |          |
|           | condition         |           | !        |                              | #9315, part 5    |            | warning device   | x        |          |
|           | #9315, part 4     |           |          |                              |                  |            |                  |          | <u> </u> |
| Air flow  | BAAQMD            | Y         |          | 7,500 sefm                   |                  | N          |                  |          |          |
| rate      | condition         |           |          |                              |                  |            |                  |          |          |
|           | #9315, part 4     |           |          |                              |                  |            |                  |          | ļ        |
| NOx       | BAAQMD            | Y         |          | 120 lb/day                   | BAAQMD condition | P/A and D  | Source test (A). |          |          |
|           | condition         |           |          |                              | #9315, part 13   |            | Record keeping   | х        |          |
|           | #9315, part 10    |           |          |                              | & 14             |            | (D)              |          |          |
| NH3       | BAAQMD            | Y         |          | 2,200 lb/day, and            | BAAQMD condition | P/A and D  | Source test (A), |          |          |
|           | condition         |           |          | 200 lb/day (when             | #9315, part 13   |            | Record keeping   | x        |          |
|           | #9315, part 10    |           |          | A-56 in operation)           |                  |            | (D)              |          | _        |
| co        | BAAQMD            | Y         |          | 400 ppmv dry @               | BAAQMD condition | P/A        | Source test      |          |          |
|           | condition         |           |          | 3% Oxygen                    | #9315, part 13   |            |                  | х        |          |
|           | #9315, part B     |           |          |                              |                  |            |                  |          | ļ        |
| Тетр-     | BAAQMD            | Y         |          | 1400 degree F                | BAAQMD           | c          | Temperature      | I*       | I*       |
| erature   | condition         |           |          |                              | condition #9315, |            | Monitor          |          |          |
| (A-56)    | #9315, part 9     | ļ <u></u> |          |                              | part 7           |            |                  | <u> </u> | <u> </u> |
|           |                   |           |          |                              |                  |            |                  |          |          |
| Residence | ВЛЛОМО            | Y         |          | 0,4 second                   | BAAQMD condition | P/A        | Source test      | х        |          |

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| İ | time   | condition     |  | #9315, part 13 |  |  |
|---|--------|---------------|--|----------------|--|--|
|   | (A-56) | #9315, part 9 |  |                |  |  |

<sup>\*</sup> Intermittent - Note: There were 2 permit condition deviations of Permit Condition #9315 Part 7 (H2 Afterburner –A56), concerning low temperatures. The deviations reports were sent in to the BAAQMD. See episode summaries in cover letter above.

# Table VII - U Applicable Limits and Compliance Monitoring Requirements \$511 - H2 PRODUCT CONVEYOR \$512 - H2 PRODUCT SCREENER \$513 - H2 PRODUCT PACKAGING

| Type of<br>Limit | Citation of<br>Limit | FE<br>Y/N | Future<br>Effective<br>Date | Limit                 | Monitoring Requiremen t Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type | Сомј | diance      |
|------------------|----------------------|-----------|-----------------------------|-----------------------|----------------------------------|------------------------------|--------------------|------|-------------|
|                  |                      |           |                             |                       |                                  | _                            |                    | Yes  | No          |
| Opacity          | BAAQMD               | N         |                             | Ringelmann            | None                             | N                            | None               | x    |             |
|                  | 6-1-301              |           |                             | 1.0 for < 3           |                                  |                              |                    |      |             |
|                  |                      |           | _                           | minutes/hr            |                                  | _                            |                    |      |             |
| Opacity          | SIP 6-301            | Y         |                             | Ringelmann            | None                             | N                            | None               | X    |             |
|                  |                      |           |                             | 1.0 for < 3           |                                  |                              |                    |      |             |
|                  |                      |           |                             | minutes/hr            |                                  |                              |                    |      | _           |
| FΡ               | BAAQMD               | N         |                             | 0.15 gr/dsef          | None                             | N                            | None               | X    |             |
|                  | 6-1-310              |           |                             |                       |                                  |                              |                    |      |             |
|                  | BAAQMD               | N         |                             | 4.10P <sup>9.67</sup> | None                             | N                            | None               | x    | · · · · · - |
|                  | 6-1-311              |           |                             | lb/hr, where          |                                  |                              |                    |      |             |
|                  |                      |           |                             | P is process          |                                  |                              |                    |      |             |
|                  |                      |           |                             | weight,               |                                  |                              |                    |      |             |
|                  |                      |           |                             | ton/hr                |                                  | _                            |                    |      |             |
| FP               | SIP                  | Y         |                             | 0.15 gr/dsef          | None                             | N                            | None               | x    |             |
|                  | 6-310                |           | <u> </u>                    |                       |                                  |                              |                    |      |             |
|                  | SIP                  | Υ         |                             | 4,10P <sup>0 67</sup> | None                             | N                            | None               | х    |             |
|                  | 6-311                |           |                             | lb/hr, where          |                                  |                              |                    |      |             |
|                  |                      |           |                             | P is process          |                                  |                              |                    |      |             |
|                  |                      |           |                             | weight,               |                                  |                              |                    |      | !           |
|                  |                      |           |                             | ton/hr                |                                  |                              |                    |      |             |

### Table VII – V Applicable Limits and Compliance Monitoring Requirements S600 - X3 DRIED EXTRUDER, SCREENER, CONVEYOR

| Type of<br>Limit | Citation of<br>Limit                               | FE<br>Y/N | Future<br>Effective<br>Date | Lämit _   | Monitoring Requiremen t Citation           | Monitoring Frequency (P/C/N) | Monitoring<br>Type               | Совор | liance |
|------------------|--|-----------|-----------------------------|---|--|------------------------------|----------------------------------|-------|--------|
|                  | 24111  | 1/2.      | , Dan                       |   | · Citation                                 | (27011)                      | , " <b>"</b> }                   | Yes   | No     |
| Opacity          | BAAQMD<br>6-1-301,                                 | 'n        |                             | Ringelmann 1.0 for < 3  | None                                       | N                            | None                             | х     |        |
|                  | #13093,  |           |                             | minutes/hr  |  |                              |                                  |       |        |
| Opacity          | BAAQMD<br>6-301,<br>condition<br>#13093,<br>part 2 | Y         |                             | Ringelmann 1.0 for < 3 minutes/hr                                 | None                                       | N                            | None                             | x     |        |
| FP BA            | BAAQMD<br>6-1-310                                  | N         |                             | 0.15 gr/dscf  | BAAQMD -<br>condition<br>#15672, part<br>2 | С                            | Bag failure<br>warning<br>device | х     |        |
|                  | BAAQMD<br>6-1-311                                  | N         |                             | 4.10P <sup>0.67</sup> 1b/hr, where P is process  weight,  ton/hr  | None                                       | N                            | None                             | х     |        |
| FP               | SIP<br>6-310                                       | Y         |                             | 0.15 gr/dscf  | BAAQMD<br>condition<br>#15672, part        | c                            | Bag failure<br>warning<br>device | x     |        |
|                  | S1P<br>6-311                                       | Y         |                             | 4.10P <sup>0.47</sup> Ib/hr, where  P is process  weight,  ton/hr | None                                       | N                            | None                             | X     |        |
|                  | BAAQMD<br>condition<br>#13093,<br>part 3           | Υ         |                             | 0,005 gr/dsef   | BAAQMD<br>condition<br>#13097, part        | С                            | Bag failure<br>warning<br>device | х     |        |
| Air flow rate    | BAAQMD<br>condition<br>#13093, part<br>3           | Y         |                             | L2,000 setin  | None                                       | N                            | None                             | x     |        |
| Through-put      | BAAQMO   | Y         |                             | 36  | BAAQMD                                     | P/D                          | Record                           |       |        |

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|           | condition    |   | tons/DAY   | condition    |     | keeping | х |  |
|-----------|--------------|---|------------|--------------|-----|---------|---|--|
|           | #13093, part |   |            | #13093, part |     |         |   |  |
|           | 4            |   |            | 5            |     |         |   |  |
| Nickel &  | BAAQMD       | Y | 3.0% by    | BAAQMD       | P/D | Record  |   |  |
| Nickel    | condition    |   | weight per | condition    |     | keeping | x |  |
| compounds | #13093, part |   | усаг       | #13093, part |     |         |   |  |
| content   | 1            |   |            | 5            |     |         |   |  |

### Table VII - W Applicable Limits and Compliance Monitoring Requirements S601 - X3 FINES SURGE HOPPER

| Type of       | Citation of Limit | FE<br>Y/N | Future<br>Effective<br>Date | Limit                 | Monitoring  Requirement  Citation | Monitoring Frequency (P/C/N) | Monitoring<br>Type | Compliance |        |  |
|---------------|-------------------|-----------|-----------------------------|-----------------------|-----------------------------------|------------------------------|--------------------|------------|--------|--|
|               |                   |           |                             |                       |                                   |                              |                    | Yes        | No     |  |
| Opacity       | BAAQMD 6-1-       | N         |                             | Ringelmann            | BAAQMD                            | С                            | Bag failure        |            |        |  |
|               | 301, condition    |           |                             | 1.0 for ≤ 3           | Condition                         |                              | warning            | X          |        |  |
|               | #13094, part 1    |           | ···                         | minutes/hr            | #13094, part 3                    |                              | device             |            |        |  |
| Opacity:      | SIP 6-301,        | Y         |                             | Ringelmann            | BAAQMD                            | С                            | Bag failure        |            |        |  |
|               | condition         |           |                             | 1.0 for < 3           | Condition                         |                              | warning            | X          |        |  |
| !             | #13094, part 1    |           |                             | minutes/lir           | #13094, part 3                    |                              | device             | -14        | ,,,,,, |  |
| FP            | BAAQMD            | ĸ         |                             | 0.15 gr/dscf          | BAAQMD                            | C                            | Bag failure        |            |        |  |
|               | 6-1-310           |           |                             |                       | Condition                         |                              | warning            | x          |        |  |
|               |                   |           |                             |                       | #13094, part 3                    |                              | device             |            |        |  |
|               | BAAQMD            | N         |                             | 4.10P <sup>0.67</sup> | NONE                              | N                            | NONE               | x          |        |  |
|               | 6-1-311           |           |                             | lb/hr, where          |                                   |                              |                    |            |        |  |
|               |                   |           |                             | P is process          |                                   |                              |                    |            |        |  |
|               |                   |           |                             | weight,               |                                   |                              | <u> </u>           |            |        |  |
| i             |                   |           |                             | ton/hr                |                                   |                              |                    |            | ı      |  |
| FP            | SIP               | Y         | İ                           | 0.15 gr/dscf          | BAAQMD                            | С                            | Bag failure        |            |        |  |
|               | 6-310             |           |                             |                       | Condition                         |                              | warning            | x          |        |  |
|               |                   |           |                             | !                     | #13094, part 3                    |                              | device             |            |        |  |
|               | SIP               | Y         | 1                           | 4.10P <sup>0.67</sup> | NONE                              | N                            | NONE               | X          |        |  |
|               | 6-311             |           |                             | lb/hr, where          |                                   |                              |                    |            |        |  |
|               |                   |           |                             | P is process          |                                   |                              |                    |            |        |  |
|               |                   |           |                             | weight,               |                                   |                              |                    |            |        |  |
|               |                   |           |                             | ton/hr                |                                   |                              |                    |            |        |  |
|               | BAAQMD            | Y         |                             | 0.006 gr/dscf         | BAAQMD                            | С                            | Bag failure        |            |        |  |
|               | condition         |           |                             |                       | Condition                         |                              | warning            | x          |        |  |
|               | #13094, part 4    |           |                             |                       | #13094, part 3                    |                              | device             |            |        |  |
| Air flow rate | BAAQMD            | Y         |                             | 100 sefm              |                                   | N                            |                    |            |        |  |
|               | condition         | _         |                             |                       |                                   |                              |                    |            |        |  |
|               | #13094, part 4    |           |                             |                       |                                   |                              |                    |            |        |  |
| Through-put   | BAAQMD            | Y         | •                           | 1,400 tons/yr         | BAAQMD                            | P/D                          | Record             |            |        |  |
| (catalyst)    | condition         |           |                             | ,, 10.15              | condition                         | .,,                          | keeping            | x          |        |  |
| (-mai jor)    | #13094, part 2    |           |                             |                       | #13094, part 5                    | 1                            | x (4) ping         | ^          |        |  |

### Table VII - X Applicable Limits and Compliance Monitoring Requirements S602 - X3 ALUMINA SURGE HOPPER

| Type of<br>Limit | Citation of Limit | FE<br>Y/N | Future<br>Effective<br>Date | Límit                        | Monitoring<br>Requirement<br>Citation | Monitarin<br>K<br>Frequency | Monitoring Type | Comp | liance |
|------------------|-------------------|-----------|-----------------------------|------------------------------|---------------------------------------|-----------------------------|-----------------|------|--------|
|                  |                   |           |                             |                              |                                       | (P/C/N)                     |                 |      |        |
|                  |                   |           |                             |                              |                                       |                             |                 | Yes  | No     |
| Opacity          | BAAQMD 6-1-       | N         |                             | Ringelmann                   | BAAQMD                                | С                           | Hag failure     |      |        |
|                  | 301, condition    |           |                             | 1.0 for < 3                  | Condition                             |                             | warning device  | x    |        |
|                  | #13095, part 1    |           |                             | minutes/hr                   | #13095, part 3                        |                             |                 |      |        |
| Opacity          | SIP 6-301,        | Y         |                             | Ringelmann                   | BAAQMD                                | С                           | Bag failure     |      |        |
|                  | condition         |           |                             | 1.0 for < 3                  | Condition                             |                             | warning device  | X    |        |
|                  | #13095, part !    |           |                             | minutes/hr                   | #13095, part 3                        |                             |                 |      |        |
| FP               | BAAQMD            | N         |                             | 0.15 gr/dsef                 | BAAQMD                                | С                           | Bag failure     |      |        |
|                  | 6-1-310           |           |                             |                              | Condition                             |                             | warning device  | x    |        |
|                  |                   |           |                             |                              | #13095, part 3                        |                             |                 |      |        |
|                  | BAAQMD            | N         |                             | 4.10P <sup>0.57</sup> fb/hr, | NONE                                  | N                           | NONE            | X    |        |
|                  | 6-1-311           |           |                             | where P is                   |                                       |                             |                 |      |        |
|                  |                   |           |                             | process                      |                                       |                             |                 |      |        |
|                  |                   |           |                             | weight, ton/hr               |                                       |                             | l l             | . `  |        |
| FP               | SIP               | Y         |                             | 0.15 gr/dsef                 | BAAQMD                                | С                           | Bag failure     |      |        |
|                  | 6-310             |           |                             |                              | Condition                             |                             | warning device  | x    |        |
|                  |                   |           |                             |                              | #13095, part 3                        |                             |                 |      |        |
|                  | SIP               | Y         |                             | 4.10P <sup>0.67</sup> lb/hr, | NONE                                  | N'                          | NONE            | X    |        |
|                  | 6-311             |           |                             | where P is                   |                                       |                             |                 |      |        |
|                  |                   |           |                             | process                      |                                       |                             |                 |      |        |
|                  |                   |           |                             | weight, ton/hr               |                                       |                             |                 |      |        |
|                  | BAAQMD            | Y         |                             | 0.006 gr/dscf                | BAAQMD                                | С                           | Bag failure     |      |        |
|                  | condition         |           |                             |                              | Condition                             |                             | warning device  | x    |        |
|                  | #13095, part 4    |           |                             |                              | #13095, part 3                        |                             |                 |      |        |
| Air flow rate    | BAAQMD            | Y         |                             | 200 sefin                    | BAAQMD                                | N                           | NONE            | x    |        |
|                  | condition         |           |                             |                              | condition                             |                             |                 |      |        |
|                  | #13095, part 4    | I         |                             |                              | #13095, part 4                        |                             |                 |      |        |
| Through-put      | BAAQMD            | Y         | T-                          | 9,636 tons/уг                | BAAQMD                                | P/D                         | Record keeping  |      |        |
| (Alumina)        | condition         |           |                             |                              | condition                             |                             |                 | x    |        |
|                  | #13095, part 2    |           |                             |                              | #13095, part 5                        |                             |                 |      |        |

### Table VII - Y Applicable Limits and Compliance Monitoring Requirements \$603 - X3 EXTRUDER

| Type of<br>Limit  | Citation of Limit                               | FE<br>Y/N | Future<br>Effective<br>Date | Limit   | Monitoring<br>Requiremen<br>t Citation | Munitoring Frequency (P/C/N) | Monitaring<br>Type | Сотр     |     |
|-------------------|---|-----------|-----------------------------|---|--|------------------------------|--------------------|----------|-----|
| Opacity           | BAAQMD 6-1-<br>301, condition<br>#13096, part 1 | N         |                             | Ringelmann 1.0 for < 3 minutes/br                                 | NONE                                   | N                            | NONE               | Yes<br>X | Na  |
| Opacity           | SIP 6-301,<br>condition<br>#13096, part 1       | Y         |                             | Ringelmann 1.0 for < 3 minutes/hr                                 | NONE                                   | И                            | NONE               | Х        |     |
| FP                | BAAQMD<br>6-1-310                               | N         |                             | 0.15 gr/dscf  | NONE                                   | ĸ                            | NONE               | х        |     |
|                   | BAAQMD<br>6-1-311                               | N         |                             | 4.10P <sup>0.67</sup> lb/hr, where  P is process  weight,  ton/hr | NONE                                   | N                            | NONE               | х        |     |
| पन                | SIP<br>6-310                                    | Υ         |                             | 0,15 gr/dscf  | NONE                                   | N                            | NONE               | х        | *** |
|                   | SIP<br>6-311                                    | Υ         |                             | 4.10P <sup>0.6?</sup> 1b/hr, where P is process weight, ton/hr    | NONE                                   | N                            | NONE               | х        |     |
| инз               | BAAQMD<br>#15672, part 5                        | Y         |                             | 490 lb/day<br>or 48,000<br>lb/yr                                  | BAAQMD condition #15672, part          | P/A                          | Source test        | х        |     |
| Through-put       | BAAQMD<br>condition<br>#13096, part 2           | Y         |                             | 31,665<br>tons/yr   | BAAQMD<br>condition<br>#13096, part    | ס/א                          | Record<br>keeping  | X        |     |
| Nickel<br>content | BAAQMD<br>condition<br>#15672, part 10          | Y         |                             | 3.0% by<br>weight per<br>year                                     | BAAQMD<br>condition<br>#15672, part    | P/M                          | Record<br>keeping  | х        |     |

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### Table VII - Z Applicable Limits and Compliance Monitoring Requirements \$604 - X3 DRYER

| Type of | Citation of     | FE  | Future<br>Effective |                              | Monitoring<br>Requirement | Monitoring<br>Frequency | Monitoring  | Сопр | liance |
|---------|-----------------|-----|---------------------|------------------------------|---------------------------|-------------------------|-------------|------|--------|
| Limit   | Limit           | Y/N | Date                | Limit                        | Citation                  | (P/C/N)                 | Туре        | 7.   |        |
|         | 25.77           | .,  | <u> </u>            |                              | B+10100                   |                         | - I         | Yes  | No     |
| Opacity | BAAQMD          | N   |                     | Ringelmann                   | BAAQMD                    | С                       | Pressure    |      |        |
|         | 6-1-301,        |     |                     | 1.0 for < 3                  | Condition                 |                         | drop        | Х    |        |
|         | condition       |     |                     | minutes/hr                   | #13097, part 3            |                         | monitoring  |      |        |
|         | #13097, part 1  |     | <u> </u>            | _, .                         | B                         |                         | device      |      |        |
| Opacity | SIP             | Y   | 1                   | Ringelmann                   | BAAQMD                    | С                       | Pressure    |      |        |
|         | 6-301,          |     |                     | 1.0 for < 3                  | Condition                 |                         | drop        | х    |        |
| 1       | condition       |     |                     | minutes/hr                   | #13097, part 3            |                         | monitoring  |      |        |
|         | #13097, part 1  |     | i                   |                              | <u> </u>                  | _                       | device      |      |        |
| FP      | BAAQMD          | N   | !                   | 0.15 gr/dscf                 | BAAQMD                    | С                       | Pressure    | •    |        |
|         | 6-1-310         |     |                     |                              | Condition                 |                         | drop        | Х    |        |
|         |                 |     |                     |                              | #13097, part 3            |                         | monitoring  |      |        |
|         |                 |     | <u> </u>            |                              |                           |                         | device      |      |        |
|         | BAAQMD          | N   |                     | 4.10P <sup>0.67</sup> lb/hr, | NONE                      | И                       | NONE        | Х    |        |
|         | 6-1-311         |     |                     | where P is                   |                           |                         |             |      |        |
|         |                 |     |                     | process                      |                           |                         |             |      |        |
|         |                 |     |                     | weight, ton/hr               |                           |                         |             |      |        |
| FP      | SIP             | Y   |                     | 0.15 gr/dscf                 | BAAQMD                    | С                       | Pressure    |      |        |
|         | 6-310           |     |                     |                              | Condition                 |                         | drop (      | X    |        |
|         |                 |     |                     |                              | #13097, part 3            |                         | monitoring  |      |        |
|         | <u> </u>        |     |                     |                              |                           |                         | device      |      |        |
|         | SIP             | Y   |                     | 4.10P <sup>0.67</sup> lb/hr, | NONE                      | N                       | NONE        | X    |        |
|         | 6-311           |     |                     | where P is                   |                           |                         |             |      |        |
|         |                 |     |                     | process                      |                           |                         |             |      |        |
|         |                 |     |                     | weight, ton/hr               |                           |                         |             |      |        |
|         | BAAQMD          | Υ   |                     | 0.005 gr/dsef                | BAAQMD                    | С                       | Pressure    |      |        |
|         | condition       |     |                     |                              | Condition                 |                         | drop        | X    |        |
|         | #13097, part 4  |     |                     |                              | #13097, part 3            |                         | monitoring  |      |        |
|         |                 |     |                     |                              |                           |                         | device      |      |        |
| NH3     | BAAQMD          | Υ   |                     | 490 lb/day or                | BAAQMD                    | P/A                     | Source test |      |        |
|         | #15672, part 5  |     |                     | 48,000 lb/yr                 | condition                 |                         |             | X    |        |
|         |                 |     |                     |                              | #15672, part              |                         |             |      |        |
|         |                 |     |                     |                              | 11                        |                         |             |      |        |
| Nickel  | BAAQMD          | Y   |                     | 3.0% by                      | BAAQMD                    | P/M                     | Record      |      |        |
| content | condition       |     |                     | weight per                   | condition                 |                         | keeping     | x    |        |
|         | #15672, part 10 |     |                     | year                         | #15672, part              |                         |             |      |        |
|         | "               |     |                     |                              | 14                        |                         |             |      |        |

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| Air flow rate | BAAQMD         | Y | L2,000 selin | NONE           | N   | NONE       | X |  |
|---------------|----------------|---|--------------|----------------|-----|------------|---|--|
|               | cendition      |   |              |                |     |            |   |  |
|               | #13097, part 4 |   |              |                |     |            |   |  |
| Natural gas   | BAAQMD         | Y | 534,360      | DAAQMD         | С/М | Fuel meter |   |  |
|               | condition      |   | therms/yr    | condition      |     | and Record | x |  |
|               | #13097, part 5 |   | ·            | #13097, part 6 |     | keeping    |   |  |
|               |                |   |              | and 7          |     |            |   |  |

### Table VII - AA Applicable Limits and Compliance Monitoring Requirements S606 - X3 CALCINER

| Type of<br>Limit              | Citation of Limit                              | FE<br>Y/N | Future<br>Effective<br>Date | Limit   | Monitoring<br>Requirement<br>Citation  | Monitoring<br>Frequency<br>(P/C/N) | Monitoring<br>Type            | Сотр | liance |
|-------------------------------|--|-----------|-----------------------------|---|--|------------------------------------|-------------------------------|------|--------|
|                               |  |           |                             |   |  |                                    |                               | Yes  | No     |
| Opacity                       | BAAQMD<br>6-1-301, condition<br>#15672, part 1 | N         |                             | Ringelmann 1.0 for < 3<br>minutes/hr  | BAAQMD condition<br>#15672, part 2     | c                                  | Bag failure<br>warning device | x    |        |
| Opacity                       | SIP<br>6-301, condition<br>#15672, part 1      | γ         |                             | Ringelmann 1.0 for < 3<br>minutes/hr  | BAAQMD condition<br>#15672, part 2     | С                                  | Bag failure<br>warning device | х    |        |
| P                             | BAAQMD<br>6-1-310                              | N         |                             | 0.15 gr/dscf  | BAAQMD condition<br>#15672, part 2     | С                                  | Bag failure<br>warning device | x    |        |
|                               | BAAQMD<br>6-1-311                              | N         |                             | 4.10P <sup>0.67</sup> lb/hr, where P is process weight, tou/hr                      | NONE                                   | И                                  | NONE                          | х    |        |
| FP                            | SIP<br>6-310                                   | Y         |                             | 0.15 gr/dscf  | BAAQMD condition<br>#15672, part 2     | С                                  | Bag failure<br>warning device | х    |        |
|                               | SIP<br>6-311                                   | Y         |                             | 4.10) <sup>2.67</sup> lb/hr, where P is process weight, ton/hr                      | NONE                                   | И                                  | NONE                          | X    |        |
|                               | BAAQMD<br>condition<br>#15672, part 3          | Y         |                             | 0.005 gr/dscf   | BAAQMD condition<br>#15672, part 2     | С                                  | Bag failure<br>warning device | х    |        |
| NOx                           | BAAQMD<br>condition<br>#15672, part 6          | Y         |                             | 51 lb/day or 18,500<br>lb/ут  | BAAQMD condition<br>#15672,<br>part 12 | С                                  | СЕМ                           | Х    |        |
| со                            | BAAQMD<br>condition<br>#15672, part 9          | Y         |                             | 19,524 lb/ут  | BAAQMD condition<br>#15672,<br>part 12 | С                                  | CEM                           | х    |        |
| CO<br>abatement<br>efficiency | BAAQMD<br>condition<br>#15672, part 8          | Y         |                             | > 90% mass basis efficiency when outlet is >40ppm on a rolling 8 hour average       | BAAQMD condition<br>#15672,<br>part 12 | С                                  | СЕМ                           | x    |        |
| NI43                          | BAAQMD<br>#15672, part 5                       | Y         |                             | 490 lb/day or 48,000<br>lb/yr   | BAAQMD condition<br>#15672,<br>part 11 | P/A                                | Source test                   | х    |        |
| SO2                           | BAAQMD 9-1-301                                 | N         |                             | GLC of 0.5 ppm for 3<br>min. or 0.25 ppm for<br>60 min. or 0.05 ppm<br>for 24 hours | NONE                                   | N                                  | NONE                          | х    |        |
|                               | BAAQMD 9-1-311.2                               | N         |                             | 50 lbs/hr   | NONE                                   | N                                  | NONE                          | х    |        |

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| SO2               | SIP<br>9-1-301                         | Y | GLC of 0.5 ppm for 3<br>min. or 0.25 ppm for<br>60 min. or 0.05 ppm<br>for 24 hours | NONE  | N     | NONE                          | х |  |
|-------------------|--|---|---|---|-------|-------------------------------|---|--|
|                   | SIP<br>9-1-311.2                       | Y | 50 lbs/hr   | NONE  | ĸ     | NONE                          | х |  |
| Nickel<br>content | EAAQMD<br>condition<br>#15672, part 10 | Y | 3.0% by weight per<br>year  | BAAQMD condition<br>#15672,<br>part 14      | P/M   | Record keeping                | х |  |
| Air flow<br>rate  | BAAQMD<br>condition<br>#15672, part 3  | Y | 1,736 scfm  | NONE  | ĸ     | NONE                          | х |  |
| Natural<br>gas    | BAAQMD<br>condition<br>#15672, part 4  | Y | 700,000 therms at<br>5606   | BAAQMD condition<br>#15672,<br>part 13 & 14 | P/C/M | Fuel meter,<br>Record keeping | x |  |